

Comment #	Reviewer Initials	Ch	Pg	Par	Line	Comment	Response
1	RH					I certainly like the regional approach. It provides the sensitivity and focus to our tropoical Pacific area that makes it easier to understand and relevant to those of us who use it to make accurate and defensible delineations. The inclusion of the more recent tools such as the 50/20 rule and the prevalence index is good.	No response is needed.
2	PL					Please use the correct Hawaiian spelling for all Hawaiian words throughout the document, beginning at the Preface with the word, Hawai'i. This is the spelling recognized statewide and federally. The document does use the 'okina for the other island names. A search indicates there are 101 occurrences in the text. Manoa has a kahako over the first 'a' (sorry, the excel sheet doesn't seem to be accepting Hawaiian fonts).	We attempted to use the correct Hawaiian spellings. However, often our source materials did not use them and this may have resulted in some errors. We are not aware of any Federal endorsement of Hawai'i as the official state name. In the draft, we used Hawaii as the state name and Hawai'i to refer to the Big Island. However, we will avoid the appearance of inconsistency by using Hawai'i throughout. We will correct the spelling of Manoa.
3	PL					Use and bring Pacific Island examples and conditions, including additional soil samples pictures and wetland habitat pictures from those islands.	We used local pictures when they were available to us.
4	MWD	1	Abstract	1	4	"Regional Supplements" used here as a common noun, therefore uncapitalized.	We will defer to the ERDC editors on questions of style and punctuation.
5	MWD	1	Abstract	1	6	Hyphen strikes me as unnecessary, but retain throughout if usage is consistent with the USACE style manual.	We will defer to the ERDC editors on questions of style and punctuation.
6	MWD	1	Contents	1	3	"Preface" on page "iii", but the page number does not appear on the preface page. Makes referencing difficult/confusing.	The final document will be paginated according to ERDC style.
7	MWD	Preface	iii	2	2	Suggest replacing "on" with "from." Suggest replacing both dashes with en dashes when used to indicate a range throughout document.	We will make the first recommended change and defer to the ERDC editors for punctuation.
8	MWD	Preface	iii	3	9	First use of Hawaiian diacritical here in "Kapa'a." There is mixed use of both Hawaiian and English spellings of Hawaiian words (including plant names) throughout document. Personally I support maintaining Hawaiian standard throughout, but if English is chosen, then be consistent. If Hawaiian spelling becomes the standard, double-check with the latest orthography. Same for Samoan and Chamorro names/spellings.	See the response to comment #2.
9	MWD	Preface	iii	4	last	Suggest capitalizing "chair," used here as a title, as in paragraph 2, bullet 3, this page.	We will make the recommended change.
10	MWD	Preface	iv	2	last	"Director" used here as a common noun, therefore uncapitalized.	We will defer to the ERDC editors on questions of style and punctuation.

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11	MWD	1	1	1	2	If there are other Corps manuals for other topics, suggest replacing "hereafter" with "hereinafter."	We will defer to the ERDC editors on questions of style and punctuation.
12	MWD	1	1	1	6	Since "three" cannot modify "approach," recommend omitting hyphen.	We will defer to the ERDC editors on questions of style and punctuation.
13	PL	1	1	2		Line 9 "The procedures given in the Corps Manual..." awkward sentence. Suggest change to "procedures outlined in..."	We prefer the original sentence. No change is needed.
14	PL	1	1	4		Line 4 "One key feature of the definition of wetlands is that, under normal circumstances..." the description that follows is a key feature of wetlands, not of the definition of wetlands. Should read "One key feature of wetlands is..."	We are referring to the regulatory definition of wetlands as stated in Corps and EPA regulations. Other definitions may differ.
15	EG	1	1	last		Explain better the statement that determination "...that a wetland is subject to regulatory jurisdiction... must be made independently..." I think the point is that only the ACOE Manual (1987) can be used along with the plant listing (Reed, 1988) for jurisdictional purposes and this should be spelled out more clearly. This is a troublesome situation, however, since it sets up two tracks for establishing the presence of a wetland. I understand the legal ramifications, but a better explanation of these two tracks (instead of the somewhat cryptic statement at the end of paragraph 2 on page 1) would really be useful, especially since paragraph 3 et seq. implies the Corps has authority as to which track it will accept in any given situation. My understanding (I could be wrong) is that Congress has that authority. While the supplement will be a great aid to learning, understanding, and delineating wetlands, delineation that lacks authority to establish federal jurisdiction is not really delineation. We might as well use the USFWS approach to determining a wetland instead of the Manual	As stated, the Corps Manual is used to determine whether an area is a wetland. But not all wetlands are jurisdictional under the Clean Water Act. The latter determination depends on current regulations, policy, court decisions, etc. Therefore, one must use other procedures to determine whether a wetland is jurisdictional. The supplement does not establish more than one way to identify the area as wetland.
16	SC	1	1	LAST		Agree with gUINThER, but ask for him for his desired wording	See the previous response.
17	EG	1	1			The Introduction continues on (pp. 1-2) establishing how the Supplement replaces various aspects and parts of the Manual and Reed(1988) as if the statement at the end of paragraph 2 on page 1 was just an aside. If it is the intent to have the Supplement eventually supplement the Manual for all regulatory purposes, then state that such is the case and when (or what needs to happen) for that to occur.	As stated in the previous response, the sentence at the end of paragraph 2 (page 1) refers only to the question of JURISDICTION under the Clean Water Act. Table 1 lists sections of the Corps Manual that are replaced by the supplement for the purpose of wetland IDENTIFICATION.

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18	MWD	1	2	3	2	Delete extra space after "Attn:"	We will defer to the ERDC editors on questions of style and punctuation.
19	MWD	1	2	3	5	Delete extra space before ZIP code.	We will defer to the ERDC editors on questions of style and punctuation.
20	MWD	1	2	4	Table	Recommend making table style consistent throughout document.	This will be done by ERDC editors.
21	MWD	1	2	Table	last	Seem like "item" should be capitalized for consistency.	The capitalized words refer to actual section titles in the supplement. The word "item" is not part of those titles.
22	SC	2	3	last		Use Pudic and Imada, XXXX, for hydrophytic vegetation indicators, rather than Reed 1988.	The Hawaiian plant list developed by Puttock and Imada (2004) was never published and was not officially accepted by the Corps or EPA for Clean Water Act wetland determinations. However, the Puttock and Imada list is being considered in the current project to update and revise
23	MWD	1	4	1	3	Recommend deleting "below the equator" as both redundant and northern-hemisphere--centric.	We will make the recommended change.
24	MWD	1	4	1	5	Suggest changing "island chain" to "Islands" for economy.	We prefer the original sentence.
25	MWD	1	4	1	12	Recommend capitalizing "Island of Guam."	We will make the recommended change.
26	MWD	1	4	1	15	Recommend capitalizing "Island of Hawai`i."	We will make the recommended change.
27	EG	1	4	2		Trade Winds is in fact a proper noun.	According to various dictionaries and online sources, trade winds is not a proper noun unless one is referring specifically to the Northeast or Southeast Trade Winds. We will revise the sentence.
28	PL	1	4	2		Line 1 "Islands in the region lie within the belt of trade winds.." There are belts of trade winds in other parts of the world. Suggested change "within a belt of trade winds"	We will make the recommended change.
29	SC	1	4	2		Comments on trade winds lumps all the islands of southern and northern hemisphere into one tradewind belt. Need to clarify the various different trade wind belts.	We will make the recommended change.
30	PL	1	4	3		Insert after first sentence "The Hawaiian Islands have the highest number of endemic, threatened and endangered flora and fauna species in the U.S."	Although true, this sentence is not relevant to the identification of wetlands.

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31	PL	1	4	3		Paragraph 3 seems to describe the main Hawaiian Islands but not the rest of the Hawaiian chain nor the other islands of the Pacific. The main Hawaiian islands have 11 out of 13 of the ecosystems recognized by conservation biologists; a characterization of "mostly forested with tropical hardwoods" downplays that critical understanding of the complexity of ecosystems in the islands, even today. A more sensitive and accurate way to talk about later colonizers (Europeans, US etc) would be to say they "arrived"; Polynesians "discovered" these islands. Suggested changes from Line 3 "The natural climax communities in the region range from high-elevation alpine and subalpine communities to hardwood wet, mesic and dry forests, shrub and grasslands, wetlands, coastal strand and coral atoll plant communities. Waves of human colonizers added large numbers of introduced and invasive plants to the flora, particularly in Hawai'i. Early Polynesian settlers carried with them a number of important food plants, including taro (<i>Colocasia esculenta</i>), sweet potatoes (<i>Ipomoea batatas</i>), breadfruit (<i>Artocarpus altilis</i>), bananas (<i>Musa acuminata</i>), and yams (<i>Dioscorea</i> spp.) (Juvik and Juvik 1998).	We will make the recommended changes.

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32	PL	1	4	3		However, prior to European discovery and settlement, most of the islands remained dominated largely by a complex and unique native flora. The arrival of Europeans (and, later, Americans, the Japanese and others) led to large-scale agricultural development, primarily for sugarcane (<i>Saccharum officinarum</i>) production in the Hawaiian islands and coconut oil and copra (<i>Cocos nucifera</i>) in American Samoa and the Marianas. Following World War II, lands in sugarcane production were converted to pastureland, secondary agro-forestry, and subsistence agriculture (Nakamura 1984, Young 1989, Natural Resources Conservation Service 2006a). Traditional taro growing lands in Hawai'i were converted to rice for a period of time between WWI and II and later returned to taro production. Large-scale agriculture (e.g., for pineapple [<i>Ananas comosus</i>] and coffee [<i>Coffea</i> spp.]) remains prevalent in some areas, along with small commercial enterprises that grow food for local consumption. Many areas have become urbanized and industrialized with large areas utilized for tourism and military purposes.	We will make the recommended changes.
33	SC and CC	1	4	3		Paragraph has heavy slant toward historical Hawaii which is not the case for Marianas and Samoa. Needs better balance or made clear we are making clear the history of Hawaii and not the other Hawaiian groups	See the previous response.
34	MWD	1	5			Recommend making map title formats consistent. Some are inside their maps, some outside.	Titles are inside bold lines that may encompass more than one small map.
35	MWD	1	6	1	4	Recommend deleting redundancy of either "site" or "location."	We will make the recommended change.
36	MWD	1	6	1	5	"northeasterly" here and "northeast" in paragraph 4, line 1, and page 7, paragraph 3, line 1. Recommend consistent usage.	We will make the recommended change. We will use Northeast Trade Winds to refer specifically to that zone of the earth. We will use northeasterly when the focus is on wind direction.
37	MWD	1	6	1	5	Suggest replacing "topographic relief" with "topography" for economy.	We will make the recommended change.
38	MWD	1	6	1	7	Recommend capitalizing "Island of Kaua'i."	We will make the recommended change.
39	MWD	1	6	1	12	Consider abbreviating ENSO after this.	The term is only used twice and is clearer if not abbreviated.
40	EG	1	6	2		"Active volcanoes" sort of implies recent activity; would not East Maui be better described as dormant?	Juvik and Juvik (1998) describe Haleakala Volcano as active, although it has not erupted since 1790.

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41	PL	1	6	2		You describe the rock formations of Guam and the Marianas on the following page. Suggest a sentence or two about the basalt and sand dune formations of Hawai'i for consistency. Add to end of par 2 "Jaucus sands are a common soil type in coastal wetlands associated with dune formations"	We will make the recommended change, but without referring to a specific named soil.
42	MWD	1	6	3	2	Suggest `ōlapalapa, but double-check.	We suggest dropping this species (see comment 45).
43	MWD	1	6	3	6	Recommend using the most recent source for the exact number of T&E plants. No need to estimate what is always an exact number.	The number of endangered plant species in Hawaii keeps increasing. Currently, "nearly 300" is accurate enough.
44	MWD	1	6	4	6	Suggest inserting "soil" before "moisture deficit" if that is indeed the case, for clarity. If that is not the case, please clarify "moisture deficit."	This statement refers to a climatic moisture deficit, when potential evapotranspiration exceeds precipitation. We will clarify the statement.
45	PL	1	6	3		Not sure this paragraph is helpful in describing "common forest trees". Aside from 'ohi'a and koa, what is the criteria for listing the other species? Suggested change "The most common forest trees in the Hawaiian Islands are the native 'ōhi'a lehua (<i>Metrosideros polymorpha</i>), koa (<i>Acacia koa</i>); over ____ species of native (endemic and indigenous) plants have been documented in the islands. More than 1,000 species of non-native and invasive plants have become established on the Hawaiian Islands. Trees such as eucalyptus (<i>Eucalyptus</i> spp.), common ironwood (<i>Casuarina equisetifolia</i>), rose apple (<i>Syzygium jambos</i>), albizia (<i>Albizia</i> spp.), strawberry guava (<i>Psidium cattleianum</i>) and kiawe (<i>Prosipos</i> spp) have become highly invasive, displacing native lowland and upland forests over large acreage. As of 1997, nearly 300 native Hawaiian plant species were listed as threatened or endangered under the U.S. Endangered Species Act (Juvik and Juvik 1998).	We will emphasize 'ohi'a and koa as recommended. It is not the intent of the supplement to elaborate on Hawaii's invasive species problems, except when they affect wetland identification.
46	EG	1	6	4		again Northeast Trade Wind is a proper noun.	We will reword the statement.
47	SC and CC	1	6	4		General balance or parallel construction in discussing the specific island groups, so that users under differences in island ecosystems in which they are applying the delineations.	The sections are parallel, in that each discusses (1) climate, (2) geology, and (3) typical vegetation. Differences are usually due to differences in detail in source materials.
48	PL	1	7	2		Line 7 insert scientific names for pago and kafu.	Those scientific names are given earlier in the same paragraph.

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49	EG	1	7	1		The southern half of Guam includes a lot of limestone areas intermixed with the volcanic soils (not just the somewhat misleading “eastern shoreline”), all the way up to the tops of the peaks.	We will reword the statement.
50	SC and CC	1	7	2		Need to clearly distinguished between introduced and native species.	We will make the recommended change.
51	SC and CC	1	7	2		Tidal range may need to be defined for each of the island geographic	This is mentioned on the top of page 8 for all islands.
52	PL	1	7	4		breadfruit should be included in the list for Samoa.	According to the Ragone and Lorence, breadfruit is not as common as the mentioned species, and is likely a Polynesian introduction.
53	MWD	1	7	5	4	Suggest deleting "near-" as unnecessary.	We will make the recommended change.
54	PL	1	7	5		might not be clear to those not familiar with Hawai'i what is meant by "tidal range" - vertical, inland?	Published tidal ranges are always vertical.
55	CC	1	pp 7-10			Are the ecosystem classifications in Hawaii following Cowardin? Are these classifications appropriate to Samoa, Guam and Commonwealth? Some of the wetland examples are not appropriate. Reviewers will provide better examples.	The Cowardin wetland classification is not sufficiently detailed for this purpose. The contributors to this section were more familiar with the Hawaiian Islands than the other island groups. Suggestions for additional wetland
56	MWD	2	pp 7-10	4	5	Unclear antecedent to "these sampling methods." Clarify.	It refers to any of the sampling methods mentioned in that paragraph. We will clarify the wording.
57	MWD	1	8	1	4	Recommend parallel construction by changing "basaltic" to a noun.	We will make the recommended change.
58	PL	1	8	1		Line 3 "(often dominated by non-native..), suggest "(often dominated today by...)	We will make the recommended change.
59	EG	1	8	2		since Batis maritima is a shrub (see Wagner, Herbst, and Sohmer) , it is incorrect to call it “herbaceous vegetation”; Both Batis and mangrove are “woody vegetation”.	We will make the recommended change.
60	PL	1	8	2		Add to end of par: "Today, many of Hawai'i's lowland and coastal wetlands are dominated by pickleweed (), California grass () and kiawe ()."	This general statement does not fit the theme of the section, which is to describe specific wetland types. However, we will add California grass (Urochloa) to the examples in the paragraph on riverine wetlands.
61	MWD	1	8	Fig		Consider abbreviating USFWS throughout doc.	We will follow ERDC publication style.
62	EG	1	8	last		technically, the hydrology of hanging bogs is perched groundwater derived from rainwater.	We will make the recommended change.
63	MWD	1	9	2	4	Do you mean TNC's Kamakou Preserve?	We will make the recommended change.
64	MWD	1	9	2	4	Suggest "Eke" but double-check.	We will make the recommended change.

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65	RT	1	9	2	6	Higher elevation forested wetlands. Higher elevation forested wetlands. This may be, area-wise, the most extensive wetlands type in the State of Hawai'i, as it (arguably) occupies very large expanses of the Puna and South Hilo Districts, which together make up about 800 square miles. It should probably be separated from montane bogs, which are defined as having high water tables and or surface flow. Many forested wetlands here occur in microdepressions on pahoehoe lava that accumulate black, mucky organic soil where drainage is impeded, within an upland matrix. The general water table may lie thousands of feet below the surface. Many or even most may be considered isolated from intermittent or permanent streams. Thousands of residences and many farms, roads, etc., have carved into or covered over the wetlands on this landscape.	We will make the recommended change.
66	PL	1	9	3		Line 3 Add "and sometimes kiawe ()" to the species listed.	We will make the recommended change.
67	EG	1	9	last		again, Batis is not herbaceous vegetation. Sporobolus at Kanaha is probably a good example here.	We will drop "herbaceous."
68	EG	1	9	Para after figure 4		I find the list of plants characteristic of riverine and open-water fringe wetlands a bit odd, and certainly for Hawai'i (we do not have Xylocarpus and Syzygium cumini is a FACU). The grasses are not really good examples either (Sporobolus virginicus is FAC and really more of a dune plant that can be found in dune system wetlands such as at Kanaha on Maui). Kawainui marsh is dominated by indigenous sawgrass, with lots of bulrush, cattail, and neke fern. Actually, the most characteristic plants of riverine and palustrine fringe wetlands in Hawaii are para (or California) grass, Urochloa (=Brachiaria) mutica and hau, Hibiscus tiliaceus. Few other plants hold a candle to these two on Oahu and Kauai.	We will revise the species lists.
69	MWD	1	10	1	last	Suggest "Āhihi Kina'u" but double check.	See the following comment and response.
70	EG	1	10			Anchialine pools are not wetlands, so why include? Either that, or explain special aquatic sites and include them all.	We will make the recommended change.

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71	PL	1	10			Add par after par 1. "It is important to note that for an estimated 1,200 years, lowland riverine and open-water fringe wetlands and estuaries in Hawai'i were either taro fields or fishponds, of cultural significance, many of which remain visible and functional. Kanaha and Kealia wetlands on Maui and most of the coastal wetlands of Moloka'i are former fishponds (Farber 1997 - date needs checking) that became silted in as a result of soil erosion from large scale agriculture and feral ungulate populations in the uplands (). The presence of rock walls are common at such sites. Prior to the arrival of Polynesians, paleoecology records suggest a more complex flora that included both loulou palms (<i>Pritchardia</i> sp.), hala () and plants that are no longer present due to rat predation and the loss of seed distributors such as the flightless giant moa () and insect pollinators (cite Burney and Kirch - sorry I'm not where I have the refs at hand; can provide later). The high elevation diversion of streams throughout the islands has dramatically changed the hydrology of many wetland sites."	This is interesting but it is not the purpose of this section to describe all the historical changes that have occurred to the islands' wetlands. Historical fish ponds that are still ponds are not wetlands. Those which have silted in are, today, coastal flats or depressions and are described in the appropriate paragraphs. We will add former fish ponds to the previous descriptions (see page 8, paragraph 2).
72	PL	2	11	1		"as the community of macrophytes that occurs..." occur?	"...community ... occurs"
73	PL	2	11	1		Line 9 suggest Aotearoa instead of New Zealand. Line 10-11 "its <u>flora</u> is influenced by an Indo-Malaysian <u>flora</u> flora with strong connections to those of the Philippines, Indonesia, and Asia. The <u>flora</u> of the Marianas lacks an American or boreal component. Unlike <u>floras</u> in some other partsof the Pacific basin, the <u>floras</u> of the Hawaiian Islands, Samoan Islands, and Marianas are composed mainly of species derived from plant colonists that took advantage of new habitats created by volcanic action. The regional <u>floras</u> of..." Suggest "Indo-Malaysian species" and "Unlike plant complexes in some..." to reduce redundancy.	We prefer New Zealand because it is more widely understood. We will try to reduce the repetition but "flora" is the appropriate term.
74	PL	2	11	2		"The wetland flora of the Hawaiian Islands includes more than 2,000 taxa," Suggest adding "taxa, of which less than ____ are native species, while in Guam...." This will give delineators some perspective on what plant communities to expect in the field.	We do not know how many wetland species in the islands are native.
75	PL	2	11	3		for Hawai'i, the new list of reference should be from C. Imada, Bishop Museum but not sure what the status is.	Only Reed (1988) is officially approved for Clean Water Act wetland delineations. However, the national wetland plant list is currently being updated and revised, with Bishop Museum input.

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76	EG	2	11	last		I'm not sure what to make of the statement "some wetland communities may be dominated primarily by FACU species and cannot be identified by dominant species alone" The "dominated primarily" is an odd description, and the point expressed seems to say, all things stated elsewhere and in the Manual about requiring hydric vegetation, hydric soil, and hydrology to establish the presence of a wetland is not necessarily true. Maybe reword so that the exception(s) come first and leave out the dominance by FACU part. I am not comfortable without more explanation in this paragraph (for example, would the point be that physiological adaptations demonstrated by the FACUs need be considered?)	The simplest way to determine whether hydrophytic vegetation is present is to evaluate the dominants. But this does not necessarily identify all wetland communities. For some, we must evaluate the entire community (non-dominants included) by using the prevalence index. For certain problematic wetland types, we must use procedures described in Chapter 5. These approaches are fully described in the appropriate sections of the supplement and do not need to be elaborated upon in this introduction.
77	EG	2	pp 11-12			Very good explanation of how to approach quantifying the vegetation	No response is needed.
78	PL	2	12	5		"In this supplement, absolute percent cover is..." Suggest defining "absolute percent cover" so that anyone using the supplement will have a common definition.	See the Glossary.
79	SC	2	12	bottom		Are absolute % cover and % cover the same thing? Are you saying "do not use relative %cover?"	Correct. See the Glossary. Relative cover cannot be used to calculate the prevalence index. Therefore, we recommend using absolute cover for all estimates.
80	sc	2	12	3		Under guidance - sampling and analysis. If you need to use plots, Size and shape AND NUMBER OF PLOTS, are important of plots could be altered to site conditions. There is nothing about the number of plots. The number of plots need to be specified, recommended or	As described in the Corps Manual and on page 12 of the supplement, sampling is done "within one or more sampling plots established in representative locations within each community." A single "representative" plot is usually sufficient but additional plots may be sampled, if needed. Vegetation sampling for a wetland delineation is intended to be rapid; it does not require multiple, randomly located
81	sc	2	12	bottom		"It is not necessary for all plants to be rooted in the plot so long as they are growing in the same soil and hydrologic conditions" creates forces sampler into a circular argument regarding soils, hydrology and vegetation in locating the sample plot.	How so? The goal is to evaluate the plant community that grows on the sampled soil. Therefore, we limit plot size or shape so that plants growing in other soil conditions are excluded. Generally this is obvious from a visual survey of
82	PL	2	13			Add to the reference list: Morris, W et al. 1999 <i>A Practical Handbook for Population Viability Analysis</i> . The Nature Conservancy.	We are not familiar with this reference. However, many other books on plant sampling would also be appropriate.

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83	RH	2	14	2	5-Feb	I especially like the move to eliminate the + and - modifiers from the FAC indicator. This simplifies the evaluation process without sacrificing accuracy or clarity in my opinion. There are enough tools to home in on accuratge vegetation parameter evalutions without these modifiers.	No response is needed.
84	EG	3				Great stuff, but will take a lot more time and some practical application to judge how well presented. But the pictures alone speak volumes.	No response is needed.
85	Conference	3				Hawaiian places should be referenced to Pukui, Hawaiian Place Names. Chamorro places names should use names from Guam local Historic Resources Division (SHPO) Na an lugat shiha gi ya guahan (Guam Place Names), contact Claudine Camacho for further assistance.	We have attempted to use local place names whenever possible, but we are limited by the availability of published sources of place names.
86	Conference	3				Paragraph very high technically for use in a field manual, recommend a less technical style.	It is not clear what paragraph the reviewers are referring to.
87	Conference	3				Would like to make the manual read "wetland for dummies" format. From a user perspection.	These supplements are technical manuals and technical wording is necessary for clarity of meaning. Unfamiliar terms are defined in the Glossary or in other sources cited in the Glossary.
88	Conference	3				in each of the soil descriptions reference to Hawaii, should indicate where you might these soils in other Pacific Islands.	There are no Hawaii soil series mapped in other parts of the Pacific (Micronesia and American Samoa). Guam and CNMI share a few soil series. American Samoa shares a couple of series with parts of non-US flag areas of Micronesia.
89	Conference	3				List of Hydric soils map units with hydric inclusion from the NRCS 1994 should added as appendix to the Supplement. It can assist in describing hydrics in different island environments.	Hydric soils lists are not included in the supplement because they are subject to change at any time by NRCS. The most current hydric soils lists are available on-line on the NRCS hydric soils web page or from the Soil Data Mart.
90	Conference	3				Beware of the folistic layer. Recommend adding a photo of a folistic layer to avoid identify a folist as an indicator.	Figure 5 on page 22 shows a folistic layer at the surface. We will add the term "folistic" to the caption for clarity.
91							No comment was given.
92	MWD	Preface	iii	2	2	Suggest replacing "on" with "from." Suggest replacing both dashes with en dashes when used to indicate a range throughout document.	This repeats comment #7.

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93	MWD	Preface	iii	3	9	First use of Hawaiian diacritical here in "Kapa'a." There is mixed use of both Hawaiian and English spellings of Hawaiian words (including plant names) throughout document. Personally I support maintaining Hawaiian standard throughout, but if English is chosen, then be consistent. If Hawaiian spelling becomes the standard, double-check with the latest orthography. Same for Samoan and Chamorro names/spellings.	This repeats comment #8.
94	MWD	Preface	iii	4	last	Suggest capitalizing "chair," used here as a title, as in paragraph 2, bullet 3, this page.	This repeats comment #9.
95	MWD	Preface	iv	2	last	"Director" used here as a common noun, therefore uncapitalized.	This repeats comment #10.
96	PL	3	20	1		"USDA Soil Conservation Service" - SCS has been NRCS since 1994. Should read "USDA Natural Resources Conservation Service" ?	The reference is correct; see the Federal Register. It was published before the name change. No change is needed in the supplement.
97	PL	3	20	1		The definition of hydric soils is also connected to a minimum number of days of inundation (5% of the growing season for the Manual). It might be useful to include that information in the definition. The NRCS here in Hawaii has been following a COE, EPA based definition (per Terrell Erickson) "Those areas that are innundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions." Is the citation (2006b) specific to Hawaii or is it generic to the US mainland? Food Security Act is 15 days innundation (7 days or 14 saturated days for pasture).	The definition of a hydric soil is correct in the supplement (see the cited Federal Register announcement). Any changes to the definition would have to be approved by the National Technical Committee for Hydric Soils and submitted through the Federal Register process. The definition does not include any requirement about the minimum duration of inundation or soil saturation.
98	PL	3	20	1		The link is for national indicators. There may be merit to having a Pacific specific indicators link.	The Pacific Islands indicators are a subset of the National indicators. Any change to the National indicators represents a change to the Pacific Islands subset. The supplement provides a list of those National indicators that are applicable to the Pacific Islands region. No change is needed.
99	EG	3	20	4	2	...in a <u>water</u> saturated and anaerobic...	We believe it is clear that saturation refers to water.
100	PL	3	21	2		Line 3 "Soils formed in such..." suggest "Soils formed with such.."	We do not see any improvement in the suggested wording.
101	EG	3	21	3	4	should it not be "unsaturated" ?	We prefer the parallel construction with non-inundated. No change is needed.

Comment #	Reviewer Initials	Ch	Pg	Par	Line	Comment	Response
102	EG	3	21	3		You may wish to add, that organic matter, particular protenaceous material, tends to be high in sulfur. It is not necessary that the site be located near an inorganic sulfur source.	The comment is correct but the supplement does not imply that an inorganic source of sulfur is needed, or that organic matter cannot be a source of sulfur. The added explanation is not necessary.
103	RT	3	23	1	1	Table 5. Does the table title mean what it says? Proportion fibers visible (versus invisible) through a hand lens? Or does it mean proportion a sample with visible fibers? If the former, how do you know how much of the fiber is invisible? Possibly a stupid question, but I am confused	The table refers to the proportion of a sample that consists of fibers when examined through a hand lens. We are not concerned with invisible fiber, so it is not mentioned. No change is needed.
104	MWD	3	24	3	2	For clarity, suggest moving sentence starting with "The question below..." to just before the questions.	We prefer to keep the sentence where it is, as an introduction to the entire section. No change is necessary.
105	MWD	3	25-26	Figures	6&7	For economy, suggest moving figures 6 and 7 side-by-side.	Formatting is dictated by publication and editing staff and will likely change from the peer review draft.
106	EG	3	26	last	2-Jan	Is it just me, but does this first sentence say anything other than measure from the surface down? Or is it assuming (but not describing) layers above the muck and mineral layers that are ignored here, but would not be ignored when soils are described for other purposes?	For the purpose of identifying a hydric soil indicator, the depth to where an indicator begins may not always be measured from the apparent soil surface. For example, a surface layer of peat is not counted unless it meets requirements for indicators A1, A2, or A3.
107	MWD	3	27	3	all	This paragraph seems more appropriate for the previous section, Observe and Document the Site.	The paragraph does not fit well in either section, and we prefer to leave it where it is. No change is necessary.
108	Conference	3	28			Revise All soils to Indicator of "All Soils"	Formatting is determined by editing and publishing staff. The wording is identical to that used in the Field Indicators of Hydric Soils in the United States, version 7.0 (2010) for consistency.
109	EG	3	28	first	top	Hydric Soils Lists - capitalized everywhere else.	We will make the recommended change for consistency.
110	EG	3	28	first	2	"however, hydric soils <u>may in fact</u> exist...."	Hydric soils are known to exist throughout the region. No change is necessary.
111	EG	3	28	3	3	Same as previous comment: "...therefore, there <u>may be</u> wetlands.."	The existing statement is true. No change is necessary.

Comment #	Reviewer Initials	Ch	Pg	Par	Line	Comment	Response
112	SC	3	28	4	1 and 2	This paragraph did not make any sense to me until after I read the following two paragraphs of examples. I think this issue could be more clearly articulated by changing "It is permissible to combine certain hydric indicators if all requirements of the indicators are met except thickness. The most restrictive requirements for thickness of layers in any indicators used must be met." to "It is permissible to combine the thickness of two adjacent layers that meet all the requirements other than thickness of the two different indicators. The combined layers must meet the thickness requirement of the most restrictive indicator.	The combining of layers is a difficult concept to comprehend; however, it is appropriate to do so and is important to include in the supplement. We concur that a user needs to read this entire section to understand the concept fully. We do not think that the suggested wording improves the clarity of the section.
113	Conference	3	28	4	2	Comprehensive difficulties - need to address by formatting or narrative changes. Suggest moving it before paragraph beginning with All Soils.	We disagree. The introduction to A, S, and F indicators is needed before the tables (7, 8, and 9) which use this notation.
114	Conference	3	29			The narrative and the table are not easily understandable, as the table appears to provide a tabular context for the narrative, but the does not always contain the information in the narrative.	The table contains all the information required to follow the example in the text, except the actual wording of each indicator, which is given later in this chapter. Users must understand hydric soil indicators to make sense of these examples. We will try to clarify the wording.
115	MWD	3	29	Table	8	For clarity and congruence between the narrative and table, suggest adding "Indicator" and "Indicator thickness requirement" columns to the table or create a separate worksheet-type table to reflect the narrative. Same for similar tables throughout.	The thickness requirement for each of the indicators used in examples is given in Table 7 on the previous page.
116	MWD	3	29	1	0	Suggest inserting the headline "Examples" before these and other examples throughout.	Table titles and accompanying text clearly label these as examples. An additional heading is not needed.
117	MWD	3	30	1	8	Assuming this is the first reference to the document, suggest inserting the web link for the document. Suggest also abbreviating future references to the same document. Or consider placing definition in the glossary of this document.	The Field Indicators are first referenced in the 3rd paragraph of the Introduction of Chapter 3. The web link is provided in that paragraph and in the References section with the full citation. We decided in this and other cases to avoid most abbreviating for clarity. No change is necessary.
118	RT	3	30	2	all	I appreciate the attention to this extremely extensive and widespread microwetland type on which much of the development in Puna and South Hilo (among other places) is occurring. When and if projects filling wetlands in these areas are ever brought to the Corps attention, understanding the environment will be critical	No response is needed.

Comment #	Reviewer Initials	Ch	Pg	Par	Line	Comment	Response
119	EG	3	32	1	1	Is it really the case that the underlying mineral soil must have a chroma of 2 or less?	Yes. This is an NCHS requirement. No change is necessary.
120	MWD	3	33	3	3	In addition to saying what the soils lack structurally, suggest saying what they are structurally as well or instead.	We will make the recommended change.
121	MWD	3	33	Fig 11		For clarity, suggest the visual aid of an arrow at the transition or bar over the layer for this and other photos referencing layers or depths, as in Figure 30.	In soil pictures, we generally include a measurement scale and describe the transition depth in the figure caption. However, we will add arrows to photos where the transition may be unclear.
122	Conference	3	34			Hydrogen sulfide indicator - Question. There might be cases of trace amount HS. You might not get the HS odor because of rapid dissipation in a breeze. Suggest a more specific recommendation to stick your nose into the ground to check the HS indicator on breezy	Hydrogen sulfide odor is very distinctive and should not be confused with other odors in wet soils. Generally, the odor is strong and sulfurous. We will add the suggestion to smell the in-place soil.
123	MWD	3	34	2	all	Fleeting indeed, so much so that standing with a clump in your hand on a breezy day versus sniffing the soil in place right after digging might mean the difference between detecting the indicator or not. Consider additional specificity about how to do this.	See the previous comment.
124	MWD	3	35	all	all	A photo would be helpful here.	We agree but no photo was available to us.
125	EG	3	36	2	2	Define "fragmental soil material" for those of us not soil scientists	The definition is in the Glossary.
126	Conference	3	40	1	1	Revise Sandy Soils to Indicators of Sandy Soils.	Formatting is determined by editing and publishing staff. The wording is identical to that used in the Field Indicators of Hydric Soils in the United States, version 6.0 (2006) for consistency.
127	Conference	3	44	1		Revise Loamy and Clay Soils to Indicators of Loamy and Clay Soils.	Formatting is determined by editing and publishing staff. The wording is identical to that used in the Field Indicators of Hydric Soils in the United States, version 6.0 (2006) for consistency.
128	Conference	3	61			Figurer 29 better photograph with context to the narrative showing more contrast at the transition zone.	We used the best photos available to us, emphasizing local photos whenever possible. We will revise the figures when better photos become available. We will add an arrow to mark the top of the indicator.
129	Conference	3	62			Photographs - improve. Figure 30 used a visual aid used an arrow on the tree truck. Other phoots use rulers--use an arrow or a bar . Some photos are not that clear and the transition zone cannot be determined - an arrow would help.	We used the best photos available to us, emphasizing local photos whenever possible. We will revise the figures when better photos become available. We will add an arrow to mark the top of the indicator.

Comments and Responses

Comment #	Reviewer Initials	Ch	Pg	Par	Line	Comment	Response
130	Conference	3	20	intro		does not provide enough information on inundation on hydric soil foundation. Should start with the definition from the manual such as 15 days saturation.	See the response to comment #97.
131	Conference	3	27	3		micro topography and distances, not soils related, should be move as site descriptors	See the response to comment #107.
132	Conference	3	28	4	2-Jan	Difficult in the clarity in the paragraph. Had trouble following the paragraph. Make it more clear. Some formatting changes might be needed to make it clarity.	We will revise to improve clarity.
133	Conference	4				Text says Fiddler crabs are not known from the Hawaiian islands, Edmondson (1946) referenced fiddler crabs were present in Hawaii, but have not seen in recent times.	The comment seems to indicate that fiddler crabs are, indeed, absent from Hawaii today. If there is a more recent reference to their occurrence, we will revise the supplement.
134	Conference	4	69 and 70			Indicator d9 - water stained leaves. Would not apply in high rainfall areas, i.e., high rain areas of the windward Hawaiian islands and other high rainfall areas. Figure 39 can be found on the forest floor and the soils hydric soils.	We don't understand the comment. If the areas have hydric soils, are they wetlands? A caution is appropriate if water-stained leaves regularly occur outside of wetlands in areas of very high rainfall. Is that the case?
135	Conference	4	71			Cautionary notes - you might also find exoskeleton remains with the hydric soils due to feral cat activity.	If found in wetlands, this would not be confusing, and the User Notes already mention that "other animals" may transport the remains of aquatic fauna into non-wetland areas.
136	MWD	4	79	2	1	Is there a more specific term than "leakage" that could be used here--diffusion? Transport?	We do not want to imply a particular mechanism for the movement of oxygen out of the roots, as this may vary with plant species and circumstances. Leakage was intended to be descriptive and non-specific.
137	Conference	4	79	2	1	Oxidized rizopheres -- term leakage. OProvide a more precise biological term for the term leakage - for example, diffusion or transpiration from living roots.	See the previous response.
138	MWD	4	83	all	all	A photo would be helpful here.	We do not have a photo of this indicator.

Comment #	Reviewer Initials	Ch	Pg	Par	Line	Comment	Response
139	Conference	4	84			Burrows indicator - On Guam, land crab burrows may be an indicator wetland hydrology, because they are prevalent in coastal wetlands, even though the crab burrows may extend into drier areas. Narrative on the land crabs should include a photo showing the difference between Land and Fiddler crab burrows. The land crabs till and move soils and create distinct topography. So evidence of land crab changes may be present even if the burrows are not present.	Various literature and web sources describe land crabs as "terrestrial" or "semi-terrestrial." Micheli et al. (1991) found that Cardisoma carnifex burrows in East Africa were usually located well above the "high-water neap tide level." In the Caribbean, too, land crab (Cardisoma quahumi) burrows tend to be located primarily in the area above the wetland boundary. Thus, land crab burrows are excluded from the Caribbean version of this indicator and we recommend the same approach be used in the Pacific. We will revise this section accordingly.
140	MWD	4	84	all	all	Just curious if land crab (Cardisoma carnifex) burrows are and indicator for Guam. The description applies equally to this species. (Although I'm unsure on the depth to water, but probably similar). Recommend that it be stated whether or not. If it is, a separate photo would be helpful, since they look so different from Uca burrows.	See the previous response. We do not have a photo of land crab burrows. In any case, they are easily differentiated based on size.
141	MWD	4	87	Fig.54		Recall the correct spelling as Kanahā. <i>Place Names of Hawai'i</i>	We will make the recommended change.
142	Conference	4	91			Nice to have a sample worksheet.	We will provide an example as a figure. The method is so simple, it does not require a "worksheet."
143	MWD	4	91	2	6	Recommend for clarity that you specify whether only non-dominants or non-dominants additionally should be considered.	Either way, the result is the same. No change is needed.
144	MWD	4	91	all	all	A sample worksheet would help here to illustrate when non-dominant species should be considered.	See the previous responses.
145	Conference	4	91	2	6	"non dominant species should be considered" - need examples to demonstrate consideration of non-dominant species, I.e., a little work sheet.	See the previous responses.

Comment #	Reviewer Initials	Ch	Pg	Par	Line	Comment	Response
146	RT					I do not have any comments on the specifics of this chapter. I do not have any comments on the specifics of this chapter. Obviously a lot of thought went into it by some very experienced folks who know much more than I about wetlands. My only observation, given from the point of an environmental science generalist who has to deal with wetlands as one of dozens of environmental variables, is about level of effort. Some of the methods would seem to involve "moonshot"-level investments of time and money to establish whether the given environment should be called a wetlands or not. In some cases, these investments may be worth it, but I suspect that in most, it will not. For example, when the Corps needs to site a farmer for a potential violation in filling some wetlands adjacent to a taro patch, or a resident's driveway that passes over an often-flooded swale, is it really practical to sink and monitor wells that comply with USGS standards, or do chemistry lab testing of a bunch of soil samples, or manipulate vegetation data of a lot of plots in a number of ways? I realize that I am perhaps straying into the purposes of this part of Section 404, but I think simplicity of analysis should always be a shining beacon, for practical purposes. Perhaps scale - both of the area in question and the functions and values of that area - has to enter the equation.	The majority of Clean Water Act wetland determinations are based on easily observed indicators, as described in this supplement. For certain highly disturbed or problematic potential wetland sites, however, additional study or quantitative methods may be required. This is particularly true in legal cases, where the Corps must be able to justify and defend its permit decisions.
147	EG					Ron makes an excellent point. Ron makes an excellent point. There is seldom a need in 404 delineating for a research level effort. The potential impact on a suspected wetland (what is at stake) would have to be huge and highly contested. I am not suggesting deleting anything, just that being realistic is important. To require too much encourages disregard for the law or stifles good and bad projects.	See the previous response.
148	Conference					Throughout the chapter, many suggestions for resolving problems areas assumes that delineator has all the equipment, time and funding available to him. As such, many of these suggestion may not be reasonably or practical to implemented.	See the previous response.

Comment #	Reviewer Initials	Ch	Pg	Par	Line	Comment	Response
149	PL	5				general comment: on the wet side of the big island and maui there are soils and aa lava in the lowlands are always saturated because of high perched water tables, mist and rains. Some produce a limu but they may be neither wetlands or problematic wetlands (ie. around the airport in Hilo) just wet ecosystems but could be mistakenly designated as such by someone unfamiliar with the area or the local culture where the stories of the "man slaying limu" are famous	In general, the wet forest areas on the windward sides of Hawai'i and Maui are not wetlands (although they may include small wetlands in local areas with impeded drainage). Studies on Hawai'i (Wakeley et al. 1996, cited in the supplement) showed that these forests typically do not exhibit indicators of hydrophytic vegetation, hydric soils, or wetland hydrology. These areas apparently are not "always saturated" despite the very abundant rainfall.
150	PL	5	92	1		Line 3 "..in difficult-to-identify wetland <u>situations</u> in the Hawaii and Pacific Islands Region. It includes regional examples of problem area wetlands and atypical <u>situations</u> as defined in the Corps Manual, as well as other <u>situations</u> that..." Suggest first 'situations' change to "conditions", last 'situations' change to "unique or unusual site types"	We agree that it is a bit repetitive, but most users prefer consistency in terminology.
151	PL	5	92	2		Line 1 "The list of difficult wetland <u>situations</u> presented in this chapter is not intended to be exhaustive and other problematic <u>situations</u> may" Suggest change second 'situations' to "conditions"	See the previous response.
152	PL	5	92	3		Line 6-7 "knowledge of the ecology of wetlands in the region." Suggest change "wetlands of the specific island they are on". It is too easy to assume because a person is familiar with wetlands in general on the mainland (region 9 which includes us) or ie. with those in Hawaii that their knowledge applies equally well in other Pacific islands, which often results in poor recommendations and decisions.	The "region" includes only Hawai'i and the specified Pacific islands, not the mainland. Furthermore, we do not wish to restrict the users of this supplement to only certain islands.
153	PL	5	92	4		Line 4 add "ripping, tilling or mowing..." Much of the plantation lands were scraped and ripped and tilled not leaving much evidence of anything in Hawaii, not sure about other islands.	The list already includes mowing and "cultivation." We will add ripping.

Comment #	Reviewer Initials	Ch	Pg	Par	Line	Comment	Response
154	PL	5	93			A paragraph on urbanization (maybe that is not the right heading?) is also worth placing here. Something that would indicate that in numerous sites in Hawaii (and possibly A. Samoa, Guam and Saipan?), the miliatry and US-ACE drained,dredged, filled, converted and built on wetlands, and in at least one case mistakenly created one by poor design of firing range berms (firing range at Ukumehame, Maui). Near harbors they often dumped dredge into adjacent wetlands and the soil layers can be severely disturbed. Also, where they removed wetland soils (ie. to create a drainage canal) they dumped them somewhere else, so you might find the right soils on property but the sight might not have any history of being a wetland in the past. Knowing the infrastructure and development history of a site is absolutely critically for such disturbed locations.	This supplement is not intended to chronicle the changes that have occurred in wetlands through the years. The goal is to identify wetlands as they currently exist on the landscape. The examples cited in the comment are not necessarily difficult to identify today as either wetlands or non-wetlands. Where difficulties exist, they can be dealt with by using the procedures in this chapter.
155	PL	5	93			1a. Examine nearby reference sites. This may not always be applicable. In Hawaii, particularly where underground sheet flows are sometimes just below the surface, they can often be narrowly located, nearby sites may exhibit more wetland tendencies.	Examining a relatively undisturbed reference site is one of the best ways to resolve a problematic wetland determination. However, the user must be careful to select a reference site that is similar to the disturbed site in all important characteristics. A site that is clearly wetter or drier than the disturbed site clearly would make a poor reference.
156	PL	5	93			2a. Add. "It is important to note that NRCS soils maps do not always provide the appropriate detail. Many sites were done in 'rapid survey' mode and the location or extent of wetland soils may be inaccurate."	We will provide appropriate wording.
157	PL	5	93	1		Line 2 "for crops or other desired species." Not sure what other species means here. Maybe, "crops or grazing"?	The statement was simply intended to be general and not limited to plants that meet someone's definition of "crops."

Comment #	Reviewer Initials	Ch	Pg	Par	Line	Comment	Response
158	Conference	5	93	2		Maui- Investigators should be aware that there are abandoned agriculture loi, which are no longer wetlands, having reverted to uplands, as water systems are no longer functioning. While cultural sites, they would not be wetlands. However, these abandoned loi cover a continuum of uplands to wetlands. Manmade wetlands can run range of continuum uplands to wetland, similar with old river systems. Have a caveat in the manual - that human modification has occurred in every valley in the State of Hawaii - that they should use local cultural knowledge in their wetland delineations. As the manual refers to past agricultural history, the delineator should have a knowledge of historical uses of a site.	See the response to comment #154. We agree that many areas in Hawai'i (and across the country) have been manipulated by man, and much of the guidance given in Chapter 5 is intended to improve the accuracy of wetland determinations in these areas. But we do not understand the specific wetland-delineation problem presented in the comment or how to address it. In terms of wetland indicators and procedures given in the supplement, why are these areas likely to result in errors in wetland determinations? Is the guidance given in Chapter 5 not sufficient to address the problem(s)? How should the procedures be changed? Understanding the cultural history of a site does not necessarily result in an accurate delineation of any wetlands that may exist on the site today.
159	Conference	5	93	2		Catastrophic events have changed water courses and altered wetlands - highlighting the complexity of the historical of landscape changes due to agriculture and landscapes.	See the response to comment #158.
160	Conference	5	93	2		When in these problem sites, delineators need to talk to cultural experts, consult old maps and photos.	See the response to comment #158.
161	Conference	5	93	2		Delineators in problem areas need to be cognizant, research and consider the history of land use change in making a wetland determination.	See the response to comment #158.
162	Conference	5	93	2		Complexity -There is an agricultural bent to the problem areas, why weren't we discussing things in urbanized settings. Sites may be jumbled with dredging, excavation, disposal actions in wetland land areas, requiring a delineator to consult historical documents.	See the response to comment #158.

Comment #	Reviewer Initials	Ch	Pg	Par	Line	Comment	Response
163	PL	5	93	2		"In the Hawaiian Islands, agricultural drainage systems in many areas have been abandoned and wetland hydrology has returned to some of these areas. areas. On the coastal plain of Kaua'i, for example, some wetlands have become reestablished after having been drained in the past for sugar cane production." I disagree with this statement; the plantations and the water companies they own have abandoned very little (ie. no longer claim them). Many ditch systems are however are in disrepair and are leaking like sieves, which may be the more likely scenario causing the return to wetland. Bob, your thoughts?	We will reword the statement as suggested.
164	PL	5	94			2d. "hydric soils technical standard." ? First time we've mentioned this. Is this a NRCS standard? Ah, I see below it's a US-ACE standard. Add as an appendix but check first to see if it has been updated recently. Also, is this a standard that can be done without a lot of expensive resources?	This is an NTCHS standard. A web link is provided on page 104 of the peer-review draft (see item 4e of the problem soils section). This is a technical standard and, therefore, requires the appropriate equipment, time, and other resources. It is not intended for routine use.
165	PL	5	94			NRCS standards and models should be included as an appendix to the text. Many of them have been updated specifically for Hawaii/Pacific region. Suggest double-checking for that as well.	We provide web links to NRCS models and standards because this is the best way to point users to the most recent versions of these resources. If we included them as appendices to the supplement, those appendices would
166	CC	5	95	1	1	May want to include ungulate disturbance among the factors. It is a significant factor on Guam.	We will make the recommended change.
167	PL	5	96			4. It might be worth mentioning the rarest of these type of ephemeral wetlands, where the federally endangered <i>Marislea villosa</i> (<i>'ihi'ihi lauakea</i>) shows up only during winter rains and all evidence of "wetland" disappears for most of the year. 'Ihi'ihilauakea Crater on Oahu is an example, also Mo'omomi, Moloka'i.	We agree that these are valid wetlands, similar to other ephemeral wetland types. However, the working group did not wish to provide further examples.
168	CC	5	97	2	7	May want to state that one or more, not necessarily all of the following procedures must apply to make a wetland determination involving problematic hydrophytic vegetation. There are sites that would satisfy one but not all of the listed procedures.	Item 3 already says "Use one or more of the approaches..."
169	CC	5	97	3	8	May want to include <i>Leucaena leucocephala</i> (UPL on National List). I have seen this growing with co-dominant with <i>Phragmites</i> over a very high water table.	This section focuses on annual species that become established during dry periods and does not fit woody species, such as <i>Leucaena</i> . However, we will add the species to the examples in section 5 on page 98.

Comment #	Reviewer Initials	Ch	Pg	Par	Line	Comment	Response
170	PL	5	97			b1 "Examine the vegetation on a nearby, unmanaged reference site having similar soils and hydrologic conditions. Assume that the same plant community could exist on the managed site in the absence of human alteration." See comment #8. Do not assume unless you are familiar with the specific history of the immediate area. We all know what becomes of that!	See the response to comment #155. Furthermore, a history of human use does not necessarily cause problems for wetland identification. See also the response to comment #158.
171	Conference	5	97			How are we defining reference wetlands? Do we have reference wetlands in Hawaii and other islands? Or is the delineator suppose to make a determination of a reference site in relation to the site he is investigating.	Two kinds of reference sites are mentioned in the supplement. On page 97, any relatively undisturbed site that has similar soils and hydrology to the site in question can be used as a reference, and is selected by the delineator as needed. A second kind of reference site (see item 5c) is selected in advance of any intended use; its soils, vegetation, and hydrology indicators are fully characterized; and its actual hydrology is monitored over time. This kind of known and verified wetland reference site can be used to aid decisions on similar unknown and problematic sites.
172	Conference	5	97			At a minimum the investigator should document the parameters he is using to select a reference wetland or location of the wetland he is using.	We agree. Typically the wetland delineator would document this in the delineation report.
173	PL	5	97			5. not sure why these two plants (wedelia and albizia) were chosen? They seem like odd FACU to choose. Are there more common ones as examples?	These species were selected by the working group. We welcome suggestions for other examples.
174	CC	5	98	3	7	How does this correlate with Secondary Indicator C2 on pg. 85? Would 14 consecutive days also be needed for Indicator C2?	Indicator C2 (Dry Season Water Table) is a one-time observation of the water table, made during the dry season or drier-than-normal year. It has no duration requirement.
175	PL	5	98			Should say "for example, these 3 species...." 1. only those three dropped? I'm sure the list is much longer. Recommend that the whole list be included or provided for each island.	We will clarify that only the three species listed in item 5a can be dropped.
176	PL	5	98			c. Comment #8 applies	See the response to comment #170.
177	PL	5	99			1. Would be helpful to have those soil maps we talked about last week included in the appendices	NRCS soil maps are continually being updated. The web links provided in the supplement are the best way to access the most recent mapping data.

Comments and Responses

Comment #	Reviewer Initials	Ch	Pg	Par	Line	Comment	Response
178	PL	5	99			2. might want to emphasize that not all riparian areas are flood plains and visa versa. Use caution on the use of annual stream overflow deposition as a determination. Same applies to #6 not all clay layers are wetlands and visa versa.	The supplement does not use the term "riparian" in this description. The section refers only to floodplains. Areas are called wetlands only if they meet a 3-factor test or meet other requirements described in Chapter 5.
179	Conference	5	99			Do not rely to heavily on USGS or NRCS soils maps. Other chapters noted that the maps were first cuts and broad brush, investigator needs to go out into the field to make a judgement call, as he will run into situations and conditions that will not match the maps.	We agree. The supplement relies on field indicators to make hydric soil determinations in most cases. Soil mapping is only used to facilitate decisions in certain disturbed or problem situations, where indicators are missing or misleading. No change is necessary.
180	Conference	5	99	4		Seasonally ponded soils - in coastal areas where are flooded for short periods of time - have the conditions where soil indicators are deeply buried.	We do not understand comment. The guidance is correct as written. No change is necessary.
181		5	101			Not sure about an area go back a month later in a different season ... You may not have the liberty to extend the wetland survey and that you will have to make a decision at the time. It may not be appropriate to ask a landowner to do a seasonal wetland survey.	Corps regulators must make permit decisions in a timely fashion. Technical guidance given in the supplement must be weighed against agency and landowner needs. No change is needed.
182	CC	5	105	5	2	May want to specify Guam and the Northern Mariana Islands - January through May	We will make the recommended change.
183	PL	5	106			d. See comment #8 Reference sites are already so disturbed in Hawaii that finding a nearby comparative site may be problematic in and of itself.	See the response to comment #170.
184	PL	5	107			these are really extreme, expensive and time consuming. If you are taking that long to make a determination, hope its state or fed land because a private land owner isn't likely to wait that long. And hope you are well funded.	Hydrologic monitoring is the last resort when other ways of determining whether wetlands are present on a highly disturbed or problematic site are not possible. The procedure is intended to provide reliable data on which to base a decision. It is not intended for routine use.